CROW BUTTE RESOURCES, INC.

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P.O. Box 169
Crawford, Nebraska 69339-0169

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October 23, 2002

U.S Nuclear Regulatory Commission
Attention: Mr. Dan Gillen
Fuel Licensing Branch
Division of Fuel Cycle Safety and Safeguards
C/o Document Control Desk
Washington, D.C. 20555

RE: License No. SUA-1534
Docket No. 40-8943
2002 Annual Pond Inspection Report

Dear Mr. Gillen:

Please find enclosed an original issue of the Crow Butte Mine 2002 Annual Pond Inspection Report as required by NRC license condition 11.4. Mr. David Coe, a third party contractor and Professional Engineer registered with the State of Nebraska, performed the pond inspection, technical evaluation, and wrote the subsequent report.

The annual inspection was conducted in accordance with the Evaporation Pond Inspection Program dated December 1992 (Revised February 26, 1993, August 30, 1993, and February 5, 1996). If you have any questions please give me a call.

Sincerely,

John W. Cash
Senior Environmental/Safety Coordinator

CC: Mr. Mike Griffin - Crow Butte Resources, w/ attachments
Mr. John Lusher - NRC Project Manager, w/ attachments
Mr. Steve Magnuson - Crow Butte Resources, w/ attachments

NMSS01

CROW BUTTE RESOURCES, INC.

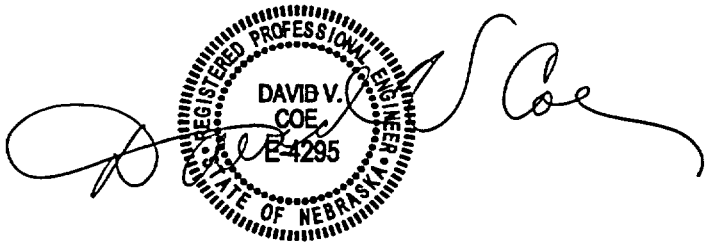
CROW BUTTE MINE

DAWES COUNTY, NEBRASKA

2002 POND INSPECTION REPORT

By: David V. Coe, PE
Nebraska Registration No. E - 4295

October 14, 2002



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1.0 GENERAL:

An annual inspection of the Crow Butte ISL Mine pond system is required by the Evaporation Pond Onsite Inspection Program dated December 1992 (Revised February 26, 1993, August 30, 1993 and February 5, 1996) and by reference under license condition number 11.4 of SUA-1534. The inspection program provides for systematic inspections and an annual technical evaluation and inspection report which compares field inspection data with engineering design reports to assess structural stability and hydraulic and hydrologic capacities.

The 2002 annual report covers the time period of November 2, 2001 through November 1, 2002. During that period five evaporation ponds were in use, two R&D ponds (Cells 1 & 2) and three commercial ponds (Ponds 1, 3 and 4).

The R&D pond design report was prepared by Klohn Leonoff Consulting Engineers in 1983 and construction of R&D cells 1 and 2 was completed in 1985. The R&D ponds have two horizontal to one vertical interior and exterior embankment slopes with a 34 mil interior hypalon liner placed on top of six inches of sand. The underdrain leak detection system piping is located beneath the pond liner and reports to two six inch monitor stand pipes. The overall depth of the R&D ponds is 15 feet and the maximum operating level is 12 feet. This provides three feet of freeboard.

The commercial evaporation pond design report was prepared by Western Water Consultants, Inc. in 1988. Construction of ponds 3 and 4 was completed in 1990 and construction of pond 1 was completed in 1992. The exterior slopes of these ponds are 2.5 horizontal to 1 vertical. The interior slopes are 2:1. Ponds 3 and 4 have a 20 mil PVC bottom liner, an intermediate geonet and a 60 mil high density polyethylene(HDPE) top liner. In pond 1, a 30 mil very low density polyethylene(VLDPE) bottom liner was installed with an intermediate geonet and 60 mil HDPE top liner. Each pond has a leak detection system consisting of six separate perforated four inch pipes which report to leak detection standpipes located on the interior slopes.

The overall depth of Pond 1 is 17 feet from crest to pond bottom and the maximum operating level is 12 feet. The 12 feet provides five feet of freeboard. The overall depth of Ponds 3 and 4 is 17.5 feet with a maximum operating level of 12.5 feet which equates to a five foot freeboard.

2.0 REVIEW OF INSPECTION DATA:

The Evaporation Pond Onsite Inspection Program dated December 1992 as amended calls for systematic inspections on a daily, weekly, monthly and quarterly basis. Data from the inspection reports are shown on Charts 1 through 4 including pond depths and underdrain measurements.

Two groundwater monitor wells are installed in the uppermost aquifer (Brule) in the commercial pond area and one groundwater monitor well in the R&D pond area. The

wells are sampled quarterly for indications of leaks in the ponds. The wells provide backup leak detection for the underdrain leak detection system. The analysis of the quarterly samples tracks alkalinity, chloride, sulfate, sodium and conductivity. The concentration of the above chemicals is compared to baseline data established in 1990 and 1991. A review of the quarterly analysis reports for 2002 indicates all parameters have not substantially deviated from the baseline parameters.

An elevated underdrain conductivity level was detected on the northwest monitoring tube of Pond 1 on August 20, 2002. The cause of the leak was a small hole in the liner caused by the apparent abrasion on the liner from the spray system. The spray system must have rubbed against the liner during windy weather. A repair of the pond liner was accomplished and the conductivity level reduced to an acceptable level. The monitoring tube was flushed with fresh water a couple of times after the liner was repaired. The records indicate the pond liner was repaired September 10, 2002.

3.0 TECHNICAL EVALUATION

The technical evaluation of the Crow Butte Mine ponds utilizes data from the systematic inspection reports, results of the annual survey and a visual inspection of the ponds to assess the hydraulic capacities and structural stability of the ponds.

Diary notes of the annual inspection are attached to this report as Attachment 1. The notes cover the visual inspection of the five ponds and the review of the reports and records for the review period of November, 2001 through October, 2002.

The annual survey was done in September and compared with previous annual survey data. No problems were indicated from a review of the survey information. Results of the annual survey are included in Attachment 2.

Pictures of the ponds have been taken for the last seven years. There has been significant improvement in the vegetative cover of the pond embankment slopes over the course of those years. The gravel surfacing of the embankment berms has improved the stability of the dam embankments. The gravel surfacing of the top of the berms prevents erosion and provides additional stability of the berm when vehicles travel on the berm during inclement weather. There are remaining sections of the pond's berms that could be surfaced with limestone base course. This year has been dry; therefore, the embankments were not subjected to very much surface erosion.

No problems in the existing embankment alignment or sloughing were detected during the visual inspection of the ponds, diversion ditches and embankments. There were no signs of seepage in the embankments or at the toe of the embankment slopes.

A review of the weekly, monthly and quarterly inspection reports indicate there were no significant shortfalls of the pond operations during the year of 2002. All the required inspections, reports and record keeping were accomplished during 2002. The monitoring

well analysis reports were taken on a quarterly basis. No significant deviation from baseline data was reported.

Calculations of diversion ditches were not included in this report, but are referenced in the previous annual reports. There have been no changes in the capacity of the diversion ditches over the last eight years. The existing ditch calculation of ditch flow can be found in Attachment 2 of the 2001 annual inspection report. These ditch calculations are also permanent records on file in the office of Crow Butte Mine. The installed ditches are capable of containing the design storm (USBR one-hour thunderstorm, zone 3) with an adequate freeboard.

The ponds have been operated at a lower level than the levels operated during 2001. The capability of transferring one pond's storage into another pond without overfilling was maintained during the 2002 year. As of October 6, 2002 the pond system contained about 67 acre-feet (AF) of stored water. The allowable storage capacity of the five ponds is 122.4 AF which provides for transfer of any one pond's storage to another pond in the system in the event of an emergency.

4.0 CONCLUSIONS:

The visual inspection of the five evaporation ponds and diversion ditches along with the review of the available inspection reports and data indicate the ponds are operating in the constraints of the engineering design.

There was no slope instability noted during the visual inspection of the pond embankments and surrounding pond areas. Vegetation was in good shape.

The pond system is operating within its designed storage capacity. Adequate freeboard existed in each pond throughout the year and reserve capacity was available in the system to transfer the contents of any one pond to the pond system.

Diversion ditches were in good shape and are capable of containing the design flood.

The addition of gravel surfacing on the top of the embankment berms helps stabilize the embankments. Continuation of this practice would enhance the areas without gravel surfacing. Gopher and rodent maintenance should be reviewed and control of these varmints should be accomplished if dirt mounds continue to appear along the embankment slopes.

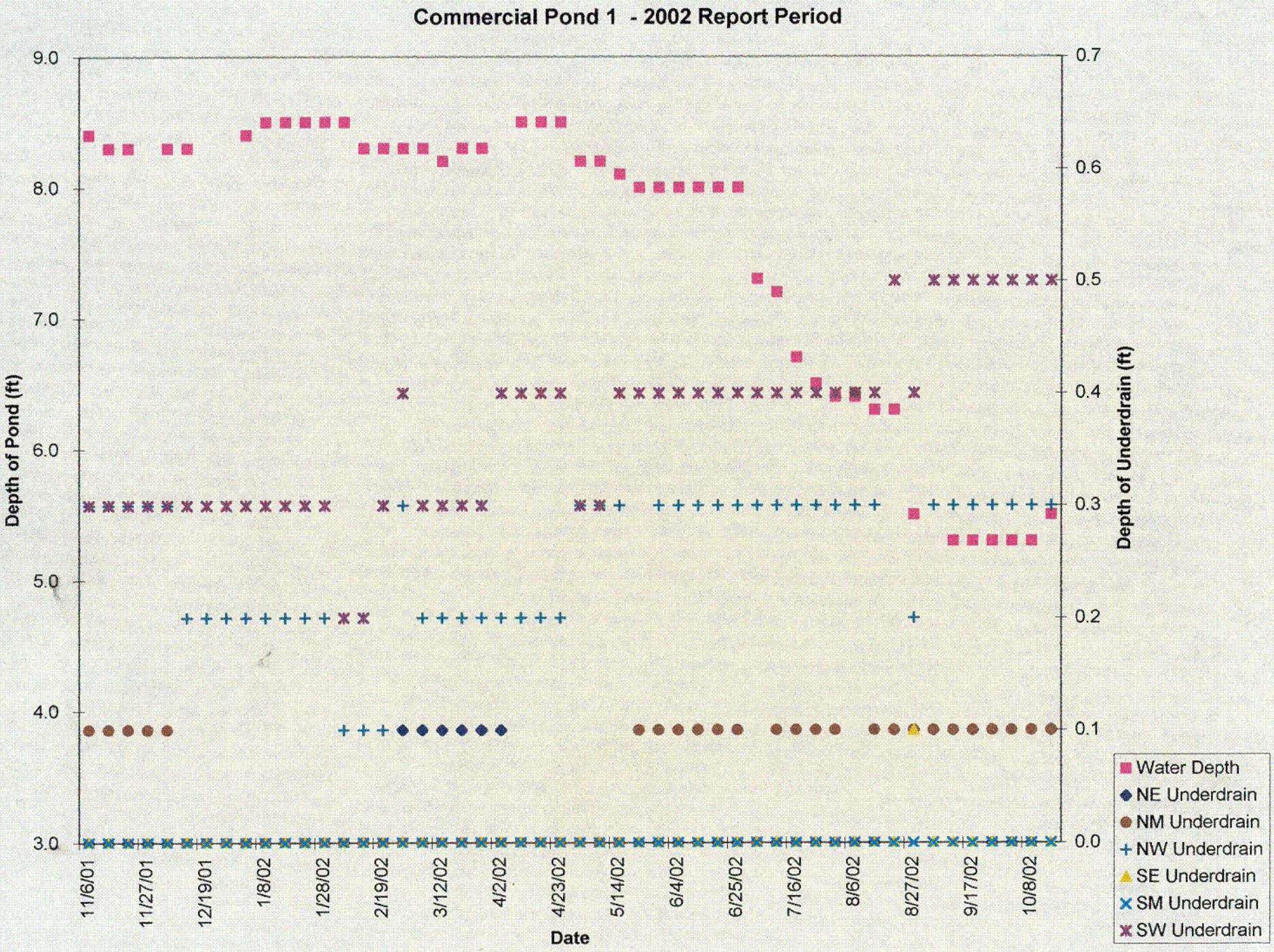


CHART NO. 1

Col

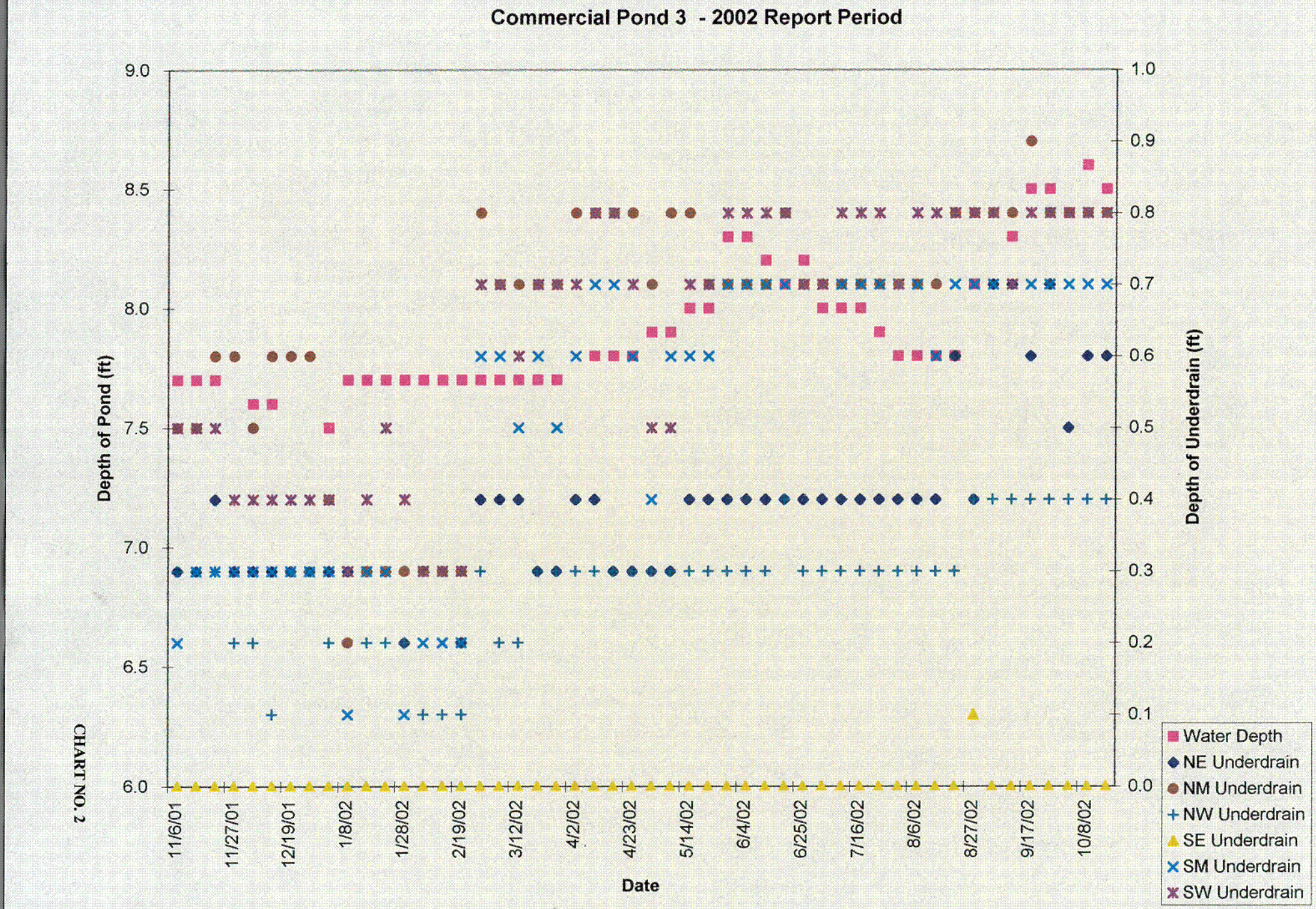


CHART NO. 2

C02

Commercial Pond 4 - 2002 Report Period

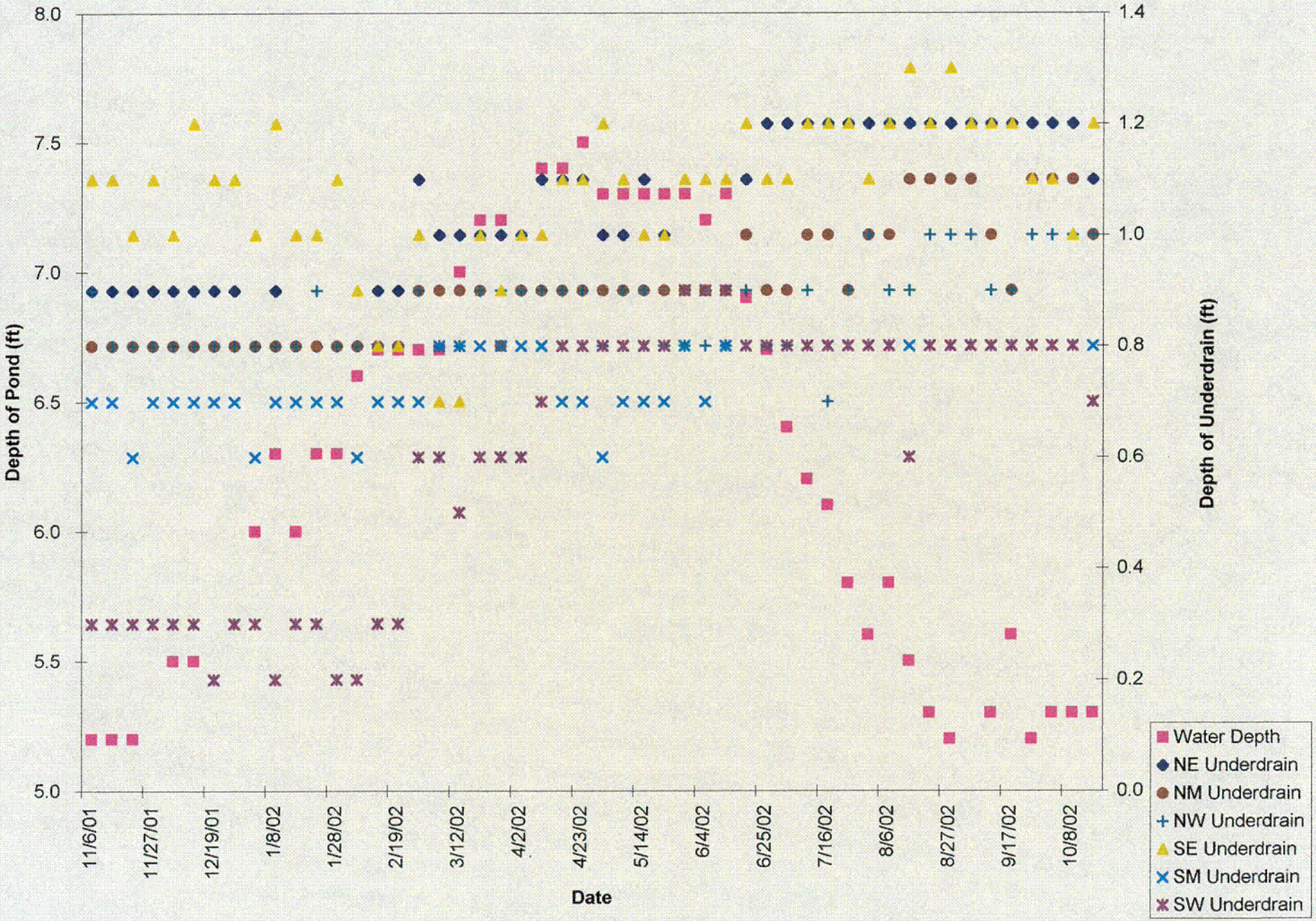


CHART NO. 3

C03

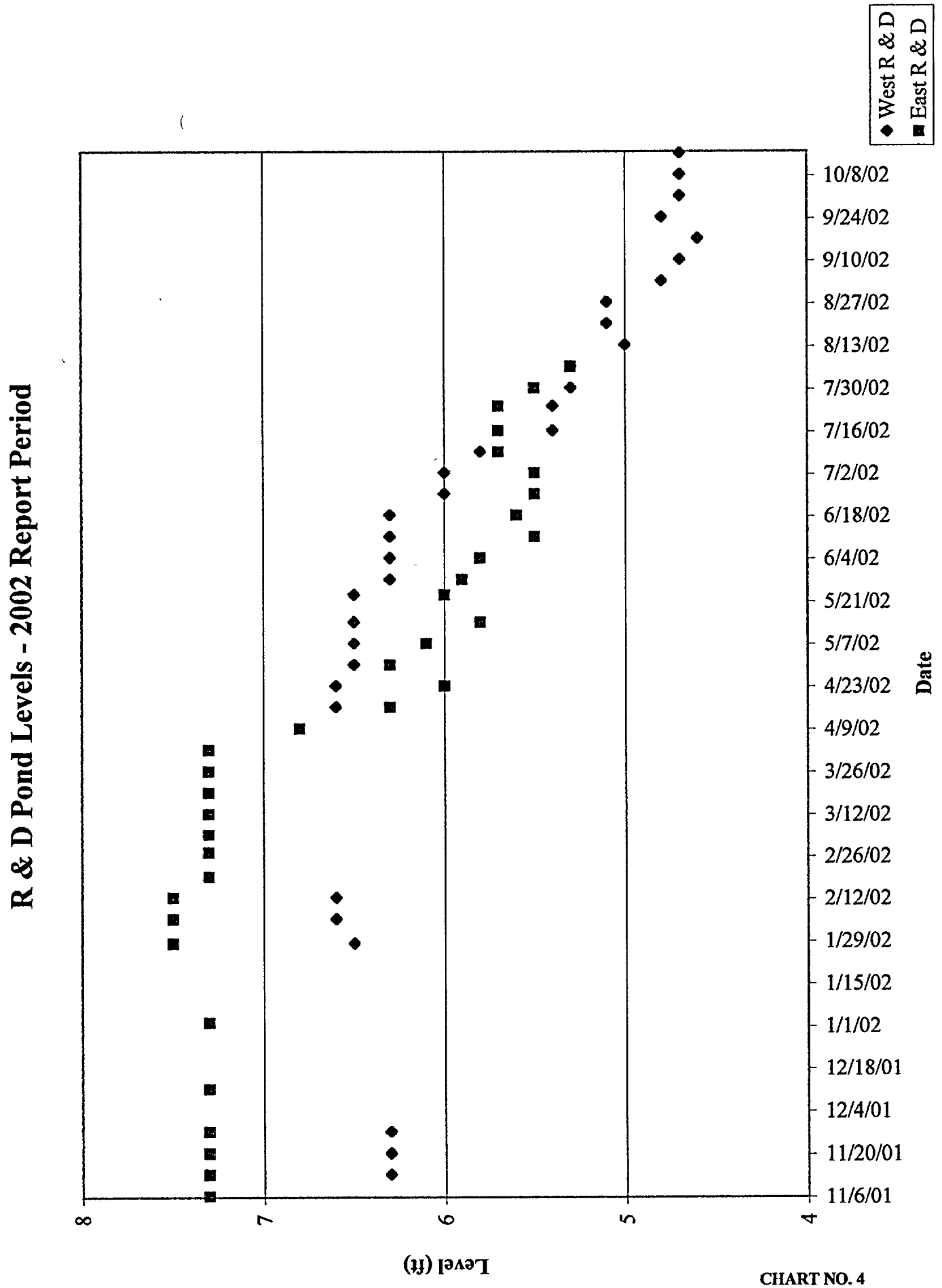

R & D Pond Levels - 2002 Report Period
West R & D
East R & D
Date
10/8/02
9/24/02
9/10/02
8/27/02
8/13/02
7/30/02
7/16/02
7/2/02
6/18/02
6/4/02
5/21/02
5/7/02
4/23/02
4/9/02
3/26/02
3/12/02
2/26/02
2/12/02
1/29/02
1/15/02
1/1/02
12/18/01
12/4/01
11/20/01
11/6/01
8
7
6
5
4
Level (ft)

CHART NO. 4

Figure 1 Commerical Pond Layout

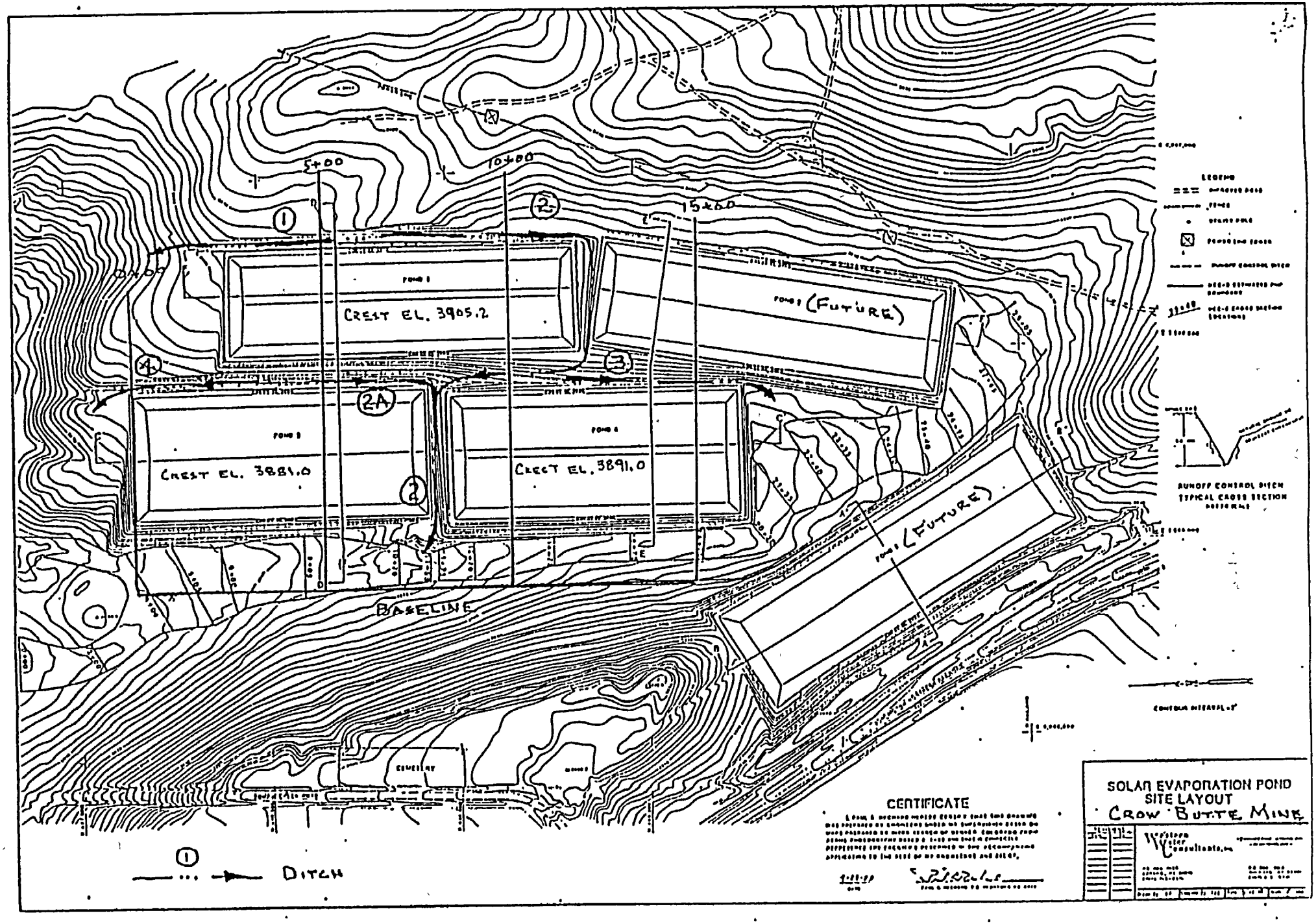
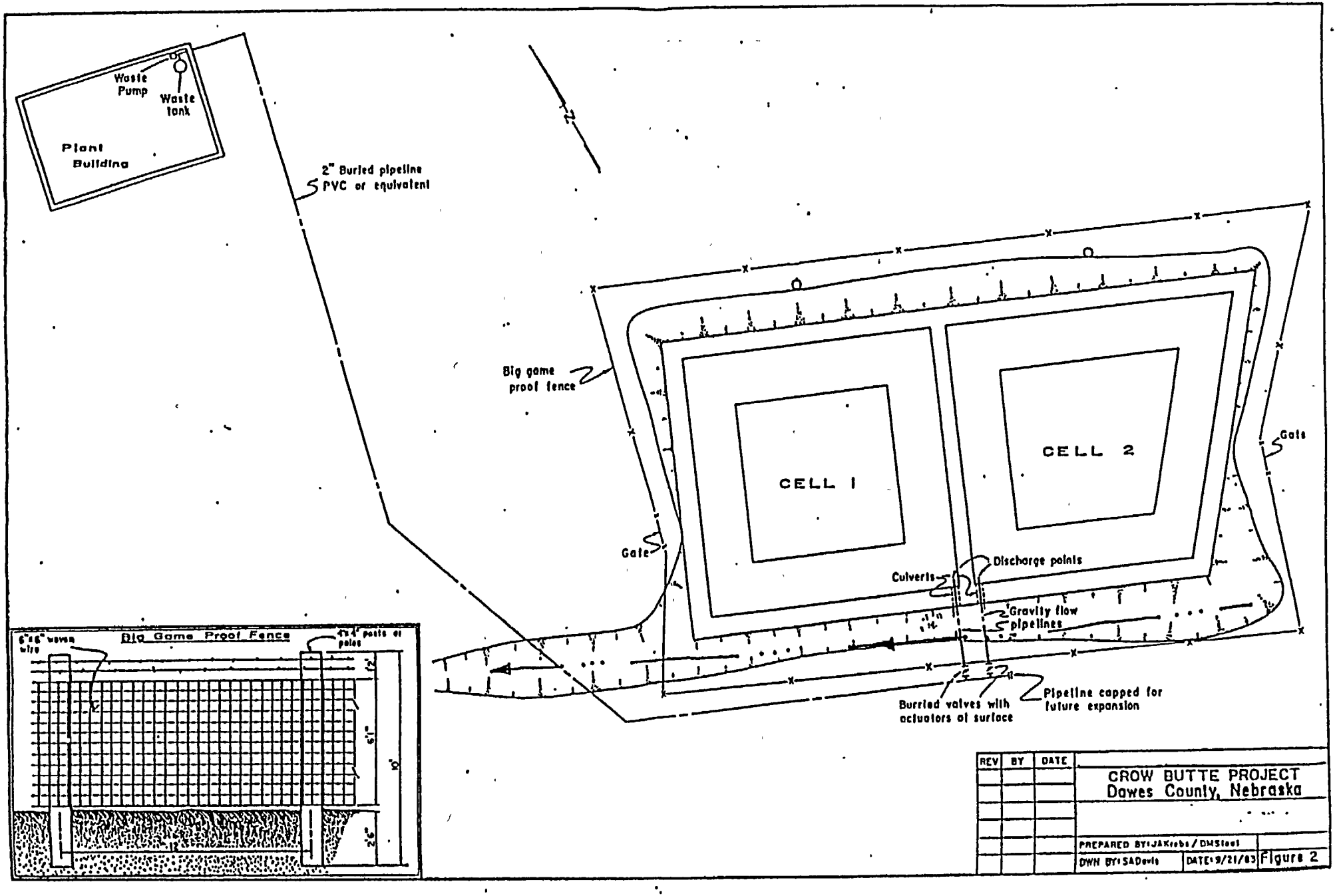


Figure 2 R&D Pond Layout



CROW BUTTE RESOURCES EVAPORATION POND ANNUAL INSPECTION

Diary notes: October 10, 2002 By: D.V. Coe

I was contacted by Crow Butte Resources to perform an annual visual inspection of their evaporation ponds and diversion ditches. The annual inspection was to be performed by a registered professional engineer. I arrived at the site about 10:30 a.m. John Cash had me sign the registration book for visitors. John then discussed the safety precautions required for work on Crow Butte Resources site. John Cash and I then went to the field to make the visual inspections of the evaporation ponds.

John indicated Pine Ridge Surveying had recently completed an annual site survey of the pond areas. The survey uses the same reference points as a base line. They take off-set stations and elevation readings off the base line at 500 feet increments. I reviewed the survey notes. The present ground elevations have not changed significantly over the last four years.

We stopped at the fence enclosure of the commercial evaporation ponds. The wildlife fence was hog wire, about 6 gage on 3 inch centers. The fence was six feet high. There were restrictive signs and radioactive caution signs on the fence. The signs were clearly displayed. The vehicle gate was locked with a padlock.

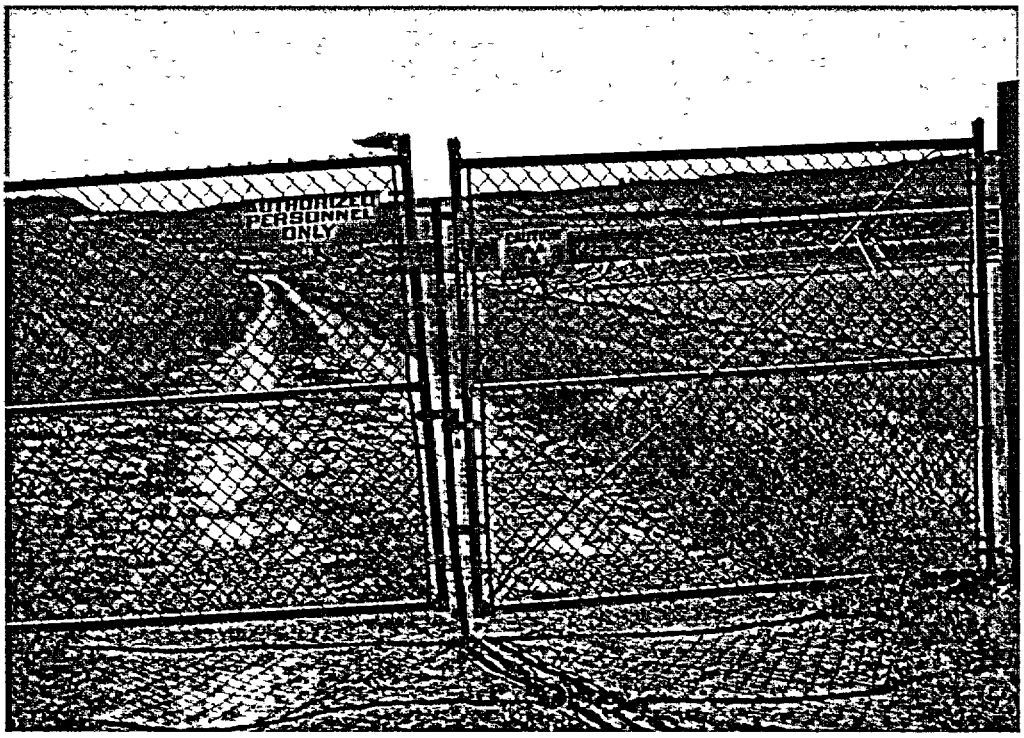


Photo shows the entrance gate to the commercial evaporation pond area.

There were three ponds fenced inside the commercial evaporation pond area. The ponds were numbered as one, three and four. Pond number two has never been constructed, but planned for future construction if needed. Pond 1 is at the highest elevation of the site and is located on the middle east part of the fenced area. The ponds were lined with a high density polyethylene type material.

We walked around pond number one first. The vegetation was good on the north back slope. There was a large diversion ditch on the east side of pond #1. There were signs of vehicle traffic on the bottom of the trapezoidal diversion ditch. The top of the east berm of pond 1 had limestone gravel base on the north 2/3rds of the east side and the entire north berm. The gravel surface has been added within the last two years. The depth of the gravel surfacing was nominally six inches. Each pond had three PVC tubes on each north and south interior slopes of the dam. The PVC tubes were on the underside of the HDPE liner. The purpose of the tubes was to provide for leak detection of the pond liner. John Cash indicated the interior 1/2" tube had coaxial wires inside them to check for the conductivity of the moisture at the bottom of the inspection tubes. The inspection format also determines the depth of any moisture at the bottom of the pond between the top and bottom liner. If the depth of any moisture in the inspection tube is greater than six inches, conductivity tests are taken and recorded. The ½" tube with coaxial wires is moved up and down inside the four inch PVC pipe to determine the depth of the moisture at the bottom of the inspection tube.

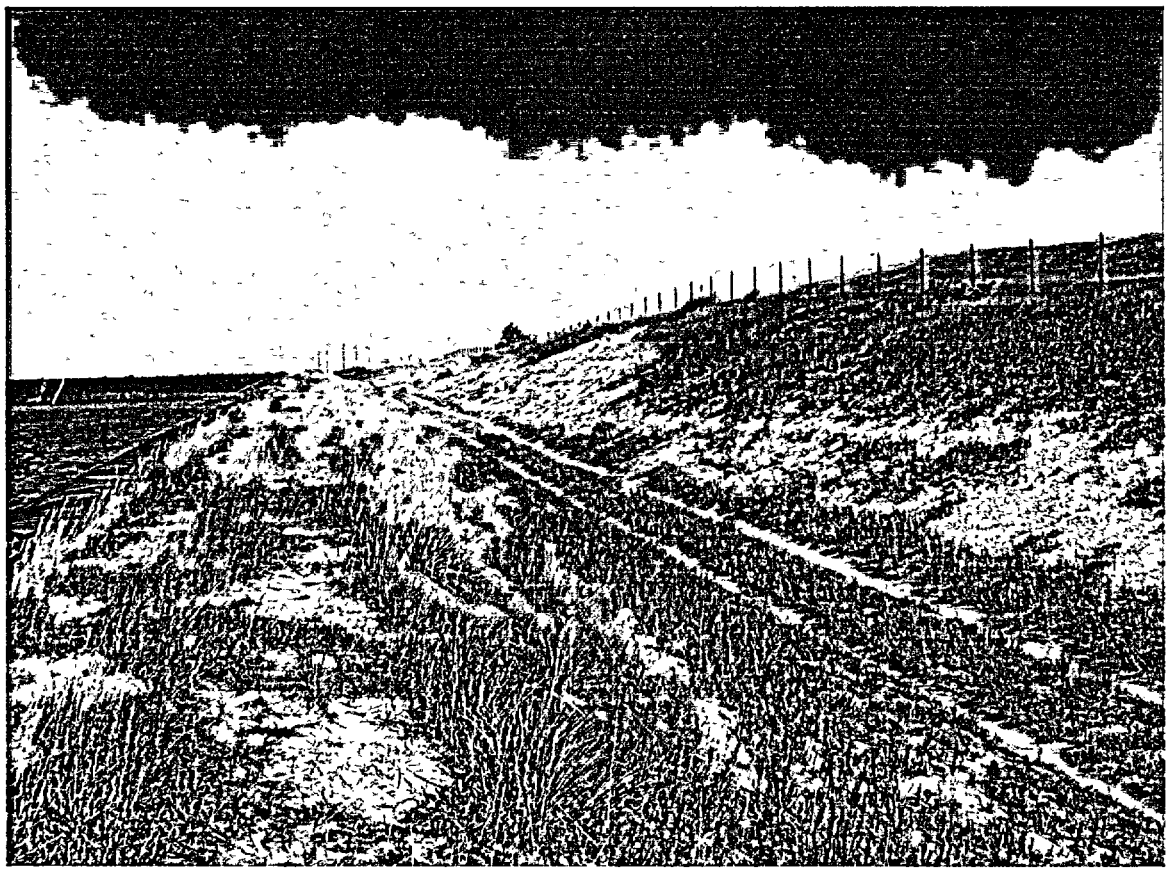
The four inch PVC inspection tubes had caps on the top and the caps were locked.

The east slope of the pond embankment had good vegetation on the back slope. The east slope of the diversion ditch had fair vegetation on the slope. I did notice some erosion rills along the back slope. The rills were less than 12 inches deep. I did not consider them major. It would be nice to attempt to vegetate the section with the erosion rills. The existing erosion is probably due to the lack of top soil on the surface of the back slope.

As I walked to the south along the berm of pond 1, I noticed several boroughs which I would assume were muskrats or gophers. I did not notice any damage of the HDPE liner resulting from rodents chewing on the liner. Pond 1 was receiving influent waters. I did not observe any tremmie tubes attached to the influent line. The water was free falling onto the HDPE liner. It was dropping about two feet.

Photo shows the influent line for pond 1. Note there is no tremmie tube at outlet.

There are pumps and piping available to transfer stored water from one pond to another.



View to the north with pond 1 on left & diversion ditch on middle right. There are small erosion rills on the east bank of the diversion ditch. This does not affect the function of the ditch. Note the limestone gravel stops on part of the berm top.

The diversion ditch flows along the east side of pond 1, then along the south side of pond 1 embankment to the west. The ditch bottom near the southwest corner had limestone rip rap to dissipate the energy of any runoff water. There was about an 8 foot drop in elevation from the diversion ditch bottom to the adjacent diversion ditch along the east side of pond 4. I did not note any appreciable erosion along the ditch bottom at the southwest corner of pond 1. This is a dry year; therefore, I assume the diversion ditches have not had much activity within the last six months.

The west slope of pond #1 embankment has a good growth of vegetation.

The diversion ditch slopes to the north between ponds #1 & #4.

I walked around the other two ponds, both on the berm tops and along the toe of the fill slopes. I did not notice any signs of significant erosion, sloughing or leaking along the toe of the fills. The vegetation along the slopes of all the embankment fills was in good shape. I noticed the cap for

the southwest under drain inspection tube was broken and should be replaced. I did not find any direct requirement for the caps, but the caps do provide protection from rain and other undesirable items from entering the inspection tubes.

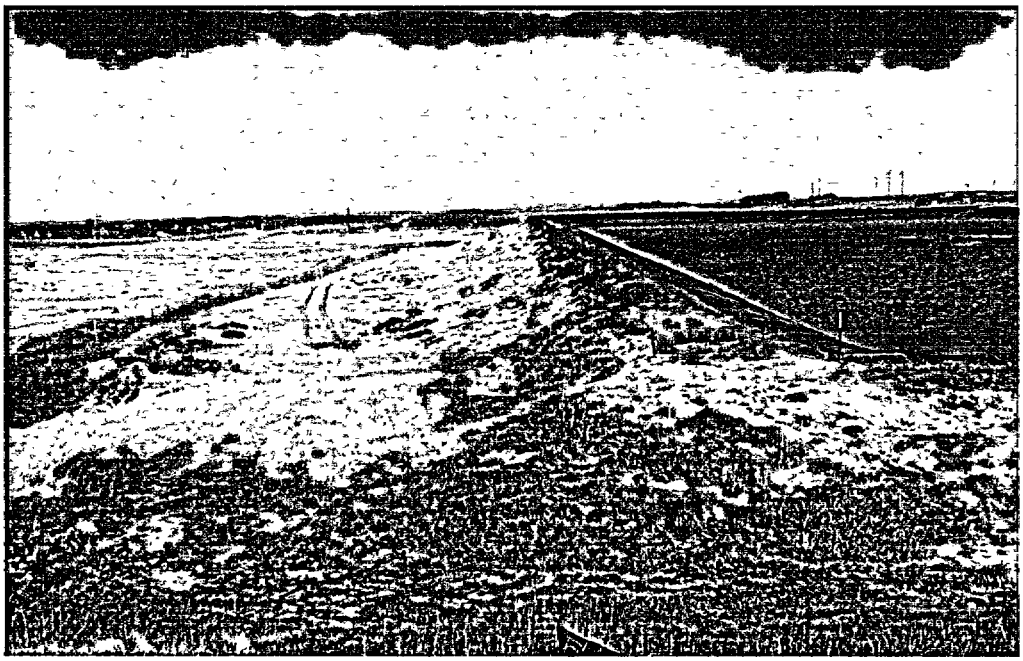
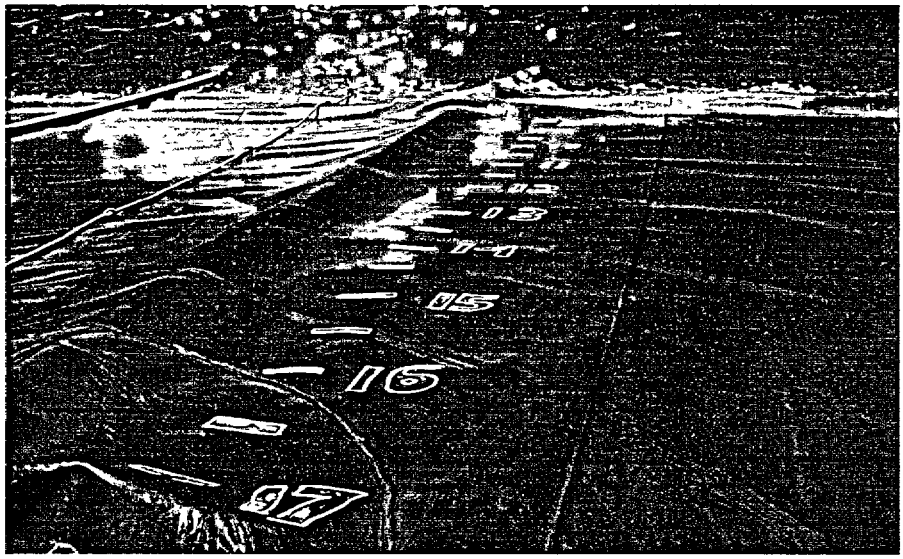


Photo shows pond 3 and the west embankment. The fence line on the far left is the natural drainage of the area. There are erosion escarpments just to the right of the fence line.

The diversion ditch flows between ponds 3 & 4. The ditch is heavily rip rapped on the west side of the two ponds. There is about a 10 foot drop in elevation from the toe of the slope of the two ponds and the natural drainage channel on the west side of the ponds. The natural drainage channel flows to the north along the west side of pond 3. There are existing natural erosion escarpments on the east side of the natural drainage channel; the top of these escarpments forms the toe of the slope for the embankment of pond 3.



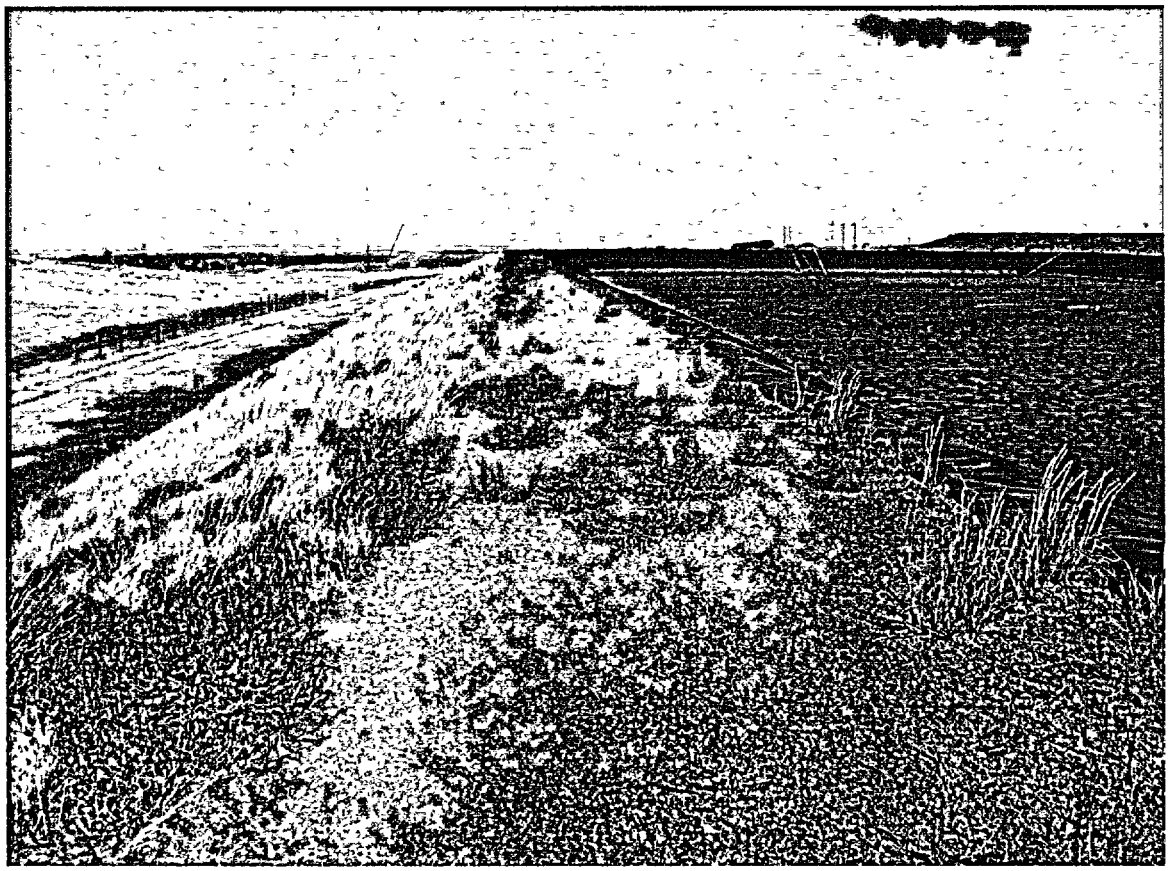


Photo shows the west berm of pond 4. Note the gravel surfacing and the good vegetation on the embankment slope. View if looking to the north. Pond 3 is on the north of pond 4.

I did notice a dead muskrat or other type of rodent floating on the east water line of pond #4. After completing the visual inspection of the three commercial ponds, John Cash and I made a visual inspection of the two Research & Development ponds. These ponds were small in comparison to the commercial evaporation ponds. The R & D ponds have a hypalon polyethylene liner which is different than the commercial pond liners. The liner seemed to be more pliable and form fitting than the liners on the commercial ponds. There was an east and west pond. The depth of the R & D ponds was about 12 feet. The reservoir of water in the ponds was rain water. The water depth was about 5.5 feet. These ponds had vertical wells adjacent to the ponds for leak detection monitoring of the pond liner. The four inch PVC casing was inside a 10" diameter steel casing with a locked cover. The vegetation over the entire fenced in area was good. There had been some local gravel placed on top of the berm. Vegetation had grown through the gravel surfacing, probably the result of very little activity along the surface.

The diversion ditch was "V" shaped and along the southeast side of the two ponds. The R & D ponds were constructed near the top of a small ridge. There was very little drainage area draining into the fenced area of the ponds. Vegetation was growing along the bottom of the diversion ditch. The diversion ditch was lined with a PVC liner. There has been about 12 inches of sediment in the bottom of the diversion ditch for at least five years. I do not believe there is any chance of much flow being diverted around these two ponds. I did not notice any sloughing or erosion of the pond embankments.

We completed the visual inspections of the ponds and diversion ditches about 1:00 this afternoon.

I spent the rest of the afternoon reviewing the daily, weekly and quarterly inspection reports and records.

The first set of records I reviewed were the weekly under drain analysis of the evaporation ponds. There were five ponds that had weekly records. The leak detection analysis is performed on a weekly basis. Pond #4 had a consistent record of having readings in excess of 6 inches of depth. Conductivity records were taken whenever the recorded depth of the under drain tubes had depths of six inches or greater. Ponds #1 & #3 did not have any readings exceeding six inches during the first part of the year. The records I reviewed were for the period of November 1, 2001 to October 7, 2002. Occasionally, there were conductivity readings for the three pond's storage water. These readings were greater than 90,000 microhms per centimeter.

The pond depths seemed to vary between six and nine feet in depth. The total depth of the ponds was 17 feet. There was sufficient free board to address draining ponds into other ponds without approaching the minimum free board of three feet.

Ponds #3 & #4 had the most readings exceeding the threshold depth of six inches. Pond #1 had very few readings greater than six inches in depth. This observation may be related to the higher location of pond #1 as compared to ponds 3 & 4. Pond 4 is located at the lowest elevation.

Pond 1 had an under drain leak in the northwest tube. Records indicate the pond liner was repaired. The northwest under drain tube was flushed with clean water several times to clean up the high conductivity reading discovered during the leak repair of the liner. The records indicate the liner was patched on September 10, 2002.

The folder of quarterly visual inspection reports of the five evaporation ponds had four quarterly reports documented. The review indicated the southwest under drain inspection tube cap had been observed as broken during the quarterly inspections. The cap had not been repaired between the quarterly inspections. A torn vent cap flap was noted on the northeast corner of pond 1. I did not notice the vent flap, but it has been observed during previous inspections.

I reviewed the files of reports for daily and weekly inspections of the commercial and R & D evaporation ponds. The inspections have been made as required by the leak detection plan for Crow Butte Resources.

I reviewed the reports on the quarterly inspections of the monitoring wells for the commercial ponds and the R & D evaporation ponds. The quarterly reports were on file for the commercial ponds for each quarter. There were extra reports taken for the monitoring wells in the commercial ponds in September after the liner in pond 1 was repaired

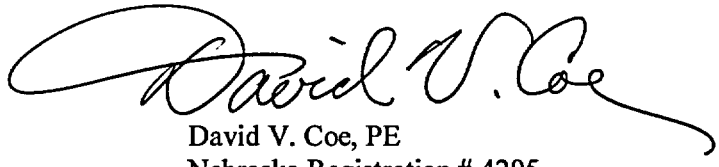
After 1999, tests for Radium and Uranium on the monitoring wells were not performed. This was a change in the testing requirements. The quarterly tests tracked the excursion chemicals present in the monitoring well waters. The reports also tested the conductivity of the water samples. The chemicals monitored were chloride, alkalinity, sulfate and sodium. There have not been any significant changes in the concentration of the monitored chemicals for the last 10 years. The conductivity has remained fairly constant during this the course of the monitoring.

Samples of the monitoring well reports for well 2 and R&D well shown below:

DATE	Well No.	Alk	Cl	Conductivity	SO4	Na
02/07/02	Com-2	190	2.8	420	12	15
	R&D	170	2.0	400	6.2	17
4/29/02	Com-2	185	3.2	420	12	13
	R&D	170	1.0	400	7.1	15
7/18/02	Com-2	190	3.9	420	12	14
	R&D	160	2.5	400	7.0	15
9/19/02	Com-2	180	4.0	420	13	15
02/07/91	Base-2	**190**	**3.47**	**440**	**11.33**	**13.37**
01/15/91	Base-R&D	**175**	**1.7**	**409**	**10.8**	**14.5**

I reviewed the photos taken of the commercial and R & D ponds. There were photos taken from 1993 to the present. One could understand the difficult time they have had establishing good vegetation along the slopes and the top of berms around the ponds. The addition of limestone base course surfacing on the top of the embankments has helped stabilize the erosion on the top surface of the pond embankments. The continuation of the gravel surfacing would enhance the stability of the pond embankments. The photos indicate the diversion ditch on the south side of the R & D ponds has always had a flat slope near the middle of the ditch liner. This situation does not affect the performance of the pond construction.

My opinion of the evaporation ponds is they are being administered in a safe and prudent manner. The monitoring for leaks and serious pond erosion is in compliance with the approved monitoring plan. Records of monitoring reports are in being maintained in compliance with the monitoring plan.



David V. Coe, PE
Nebraska Registration # 4295

PINE RIDGE LAND SURVEYS INC.
803 East Third Street, P.O. Box 860
Chadron, NE 69337
Phone\Fax 308-432-3487

September 27, 2002

John Cash
Crow Butte Resources, Inc.
86 Crow Butte Road
Crawford, Nebraska 69339

John,

I have enclosed the data for cross sections of the ponds for 2001 and 2002 for your comparison. If you have any questions, then please call me. Thanks for the work.

Sincerely,

Alan M Curd

Alan M. Curd, LS-519

ATTACHMENT #2

CROW BUTTE RESOURCES, INC.
RANGE ONE
CROSS SECTIONS FOR PONDS
STATION 0+00
September 27, 2002

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3851.75	0+00 B.L.	REBAR&CAP
89.06	3850.98	FENCE	GROUND
118.06	3852.67	GROUND	HUB
132.06	3854.38	TOE OF SLOPE	TOE
162.46	3866.80	MIDPOINT SLOPE/DIRT	GROUND
195.68	3879.94	OUTSIDE OF BERM	GROUND
356.76	3880.68	MIDPOINT POND ON BERM	REBAR
532.46	3880.94	OUTSIDE EDGE BERM	GROUND
537.86	3878.84	"V" OF DITCH	GROUND
548.66	3883.01	TOP OF SLOPE	GROUND
553.96	3883.53	FENCE	GROUND
564.86	3884.34	WEST EDGE OF ROAD	GROUND
576.76	3884.20	EAST EDGE OF ROAD	GROUND
585.26	3882.63	"V" OF DITCH	GROUND
594.26	3885.01	TOP OF DITCH	GROUND
639.72	3888.48	0+00 E.B.	REBAR&CAP

Note: Elevations taken with a Topcon Total Station, with my estimated accuracy of .10 of a foot.

Alan M. Curd, LS-519

ATTACHMENT #2

CROW BUTTE RESOURCES, INC.
RANGE TWO
CROSS SECTIONS FOR PONDS
STATION 5+00
September 27, 2002

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3862.16	5+00 B.L.	REBAR&CAP
92.41	3860.90	FENCE	GROUND
144.09	3862.27	HUB	HUB
151.21	3863.12	TOE OF SLOPE	GROUND
173.41	3871.23	MIDPOINT OF SLOPE	GROUND
194.46	3880.41	OUTSIDE EDGE BERM/DIRT	GROUND
204.91	3881.32	INSIDE EDGE BERM/LINER	LINER
522.11	3880.45	INSIDE EDGE BERM/LINER	LINER
528.02	3880.42	OUTSIDE EDGE BERM/REBAR	REBAR
537.41	3878.66	"V" OF DITCH	GROUND
563.41	3882.65	WEST EDGE OF ROAD	GROUND
577.31	3882.94	EAST EDGE ROAD	GROUND
608.61	3893.95	MIDPOINT OF SLOPE	GROUND
634.11	3904.56	OUTSIDE EDGE BERM	GROUND
636.83	3904.94	PREV. OUTSIDE EDGE BERM	REBAR
646.26	3905.17	INSIDE EDGE BERM	LINER
907.23	3905.01	EDGE BERM	LINER
909.61	3905.07	INSIDE EDGE BERM	LINER
915.35	3904.92	CENTER OF BERM	REBAR
919.01	3904.97	OUTSIDE EDGE BERM	GROUND
934.01	3899.93	W. EDGE FLAT BOTTOM DITCH	GROUND
945.41	3900.05	E. EDGE FLAT BOTTOM DITCH	GROUND
970.11	3908.67	TOE OF SLOPE	GROUND
992.91	3910.24	FENCE	GROUND
999.51	3910.95	TOP OF SLOPE	GROUND
1004.81	3913.80	W. TOP DITCH/TRAIL	GROUND
1018.21	3914.37	BOTTOM OF DITCH/TRAIL	GROUND
1022.49	3916.21	E. TOP OF DITCH/TRAIL	GROUND
1033.51	3919.44	MIDPOINT OF SLOPE	GROUND
1077.51	3928.97	TOP OF SLOPE	GROUND
1094.55	3929.55	5+00 E.B.	REBAR&CAP

ATTACHMENT #2

CROW BUTTE RESOURCES, INC.
RANGE THREE
CROSS SECTIONS FOR PONDS
STATION 10+00
September 27, 2002

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3874.31	10+00 B.L.	REBAR&CAP
95.90	3868.99	FENCE	GROUND
122.12	3870.27	TOE OF SLOPE	HUB
148.30	3879.81	MIDPOINT SLOPE	GROUND
174.40	3890.06	OUTSIDE EDGE BERM	REBAR
186.00	3890.88	INSIDE EDGE BERM	LINER
500.30	3890.79	INSIDE EDGE BERM	LINER
509.94	3889.75	OUTSIDE EDGE BERM	REBAR
537.30	3887.91	WEST EDGE ROAD	GROUND
545.4	3888.14	EAST EDGE ROAD	GROUND
552.80	3886.99	W. EDGE FLAT BOTTOM DITCH	GROUND
560.60	3886.91	E. EDGE FLAT BOTTOM DITCH	GROUND
569.50	3889.31	TOP OF DITCH	GROUND
598.90	3890.91	TOE OF SLOPE	HUB
617.90	3898.08	MIDPOINT OF SLOPE	GROUND
634.64	3904.97	OUTSIDE EDGE BERM	REBAR
644.10	3905.36	INSIDE EDGE BERM	LINER
908.90	3904.99	INSIDE EDGE BERM	LINER
918.87	3904.90	OUTSIDE EDGE BERM	REBAR
932.20	3900.20	W. EDGE FLT. BTM. DITCH/TRAIL	GROUND
942.60	3900.30	E. EDGE FLT. BTM. DITCH/TRAIL	GROUND
974.90	3911.06	TOP OF DITCH	GROUND
989.70	3911.88	FENCE	GROUND
1006.20	3913.01	TOE OF SLOPE	GROUND
1014.40	3914.90	TOP OF DITCH	GROUND
1020.70	3913.17	"V" OF DITCH	GROUND
1024.60	3915.30	TOP OF DITCH	GROUND
1038.10	3917.59	MIDPOINT OF SLOPE	GROUND
1066.70	3920.46	TOP OF SLOPE	GROUND
1086.60	3919.94	LOW POINT	GROUND
1148.46	3924.86	10+00 E.B.	REBAR&CAP

ATTACHMENT #2

CROW BUTTE RESOURCES, INC.
RANGE FOUR
CROSS SECTIONS FOR PONDS
STATION 15+00
September 27, 2002

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3883.66	15+00 B.L.	REBAR&CAP
99.76	3875.48	FENCE	GROUND
136.81	3876.09	TOE OF SLOPE	HUB
156.26	3883.71	MIDPOINT OF SLOPE	GROUND
173.06	3890.17	OUTSIDE EDGE BERM	GROUND
185.96	3891.10	INSIDE EDGE BERM	LINER
499.06	3890.76	INSIDE EDGE BERM	LINER
508.76	3891.04	OUTSIDE EDGE BERM	GROUND
515.26	3889.54	"V" OF DITCH	GROUND
524.96	3892.21	TOP OF DITCH	GROUND
536.16	3892.49	FENCE	GROUND
554.46	3893.03	TOE OF SLOPE	GROUND
559.36	3894.57	TOP OF SLOPE	GROUND
696.56	3903.49	HIGH POINT	GROUND
790.96	3904.79	LOW POINT	GROUND
985.62	3915.12	15+00 E.B.	REBAR&CAP

ATTACHMENT #2

ATTACHMENT #2

Left of Baseline; Station 0+00				
	Rebar & Cap	Hub	Rebar	Rebar & Cap
9/27/02	0.00	118.06	356.76	639.72
10/25/01	0.00	118.10	356.77	639.72
10/24/00	0.00	118.10	356.67	639.70
10/23/99	0.00	118.16	356.67	639.71
10/19/98		118.12	356.71	

Sea Level Elevation; Station 0+00				
	Rebar & Cap	Hub	Rebar	Rebar & Cap
9/27/02	3851.75	3852.67	3880.68	3888.48
10/25/01	3851.73	3852.64	3880.75	3888.49
10/24/00	3851.76	3852.74	3880.71	3888.51
10/23/99	3851.76	3852.72	3880.70	3888.51
10/19/98		3852.67	3880.71	

Left of Baseline; Station 5+00							
	Rebar & Cap	Hub	Rebar	Rebar	Rebar	Rebar	Rebar & Cap
9/27/02	0.00	144.09		528.02	636.83	915.35	1094.55
10/25/01	0.00	144.08		528.05	636.82	915.34	1094.53
10/24/00	0.00	144.03	199.26	528.02	636.80	915.35	1094.49
10/23/99	0.00	144.06	199.32	528.05	636.89	915.38	1094.61
10/19/98		144.11	199.34	528.04	636.89	915.42	

Sea Level Elevation; Station 5+00							
	Rebar & Cap	Hub	Rebar	Rebar	Rebar	Rebar	Rebar & Cap
9/27/02	3862.16	3862.27		3880.42	3904.94	3904.92	3929.55
10/25/01	3862.17	3862.30		3880.45	3905.05	3904.95	3929.59
10/24/00	3862.22	3862.29	3880.93	3880.45	3905.05	3904.98	3929.61
10/23/99	3862.22	3862.29	3880.90	3880.41	3905.08	3904.95	3929.61
10/19/98		3862.35	3880.96	3880.51	3905.10	3905.03	

ATTACHMENT #2

Left of Baseline; Station 10+00								
	Rebar & Cap	Hub	Rebar	Rebar	Hub	Rebar	Rebar	Rebar & Cap
9/27/02	0.00	122.12	174.40	509.94	598.90	634.64	918.87	1148.46
10/25/01	0.00	122.07	174.22	509.90	598.90	634.60	918.90	1148.50
10/24/00	0.00	122.08	174.03	509.92	598.94	634.60	918.88	1148.43
10/23/99	0.00	122.09	174.05	509.92	598.94	634.61	918.85	1148.48
10/19/98		122.11	174.05	509.91	598.92	634.60	918.85	

Sea Level Elevation; Station 10+00								
	Rebar & Cap	Hub	Rebar	Rebar	Hub	Rebar	Rebar	Rebar & Cap
9/27/02	3874.31	3870.27	3890.06	3889.75	3890.91	3904.97	3904.90	3924.86
10/25/01	3874.30	3870.25	3890.13	3889.80	3890.92	3904.96	3904.95	3924.85
10/24/00	3874.29	3870.26	3890.25	3889.78	3890.91	3904.96	3904.88	3924.87
10/23/99	3874.29	3870.24	3890.24	3889.74	3890.88	3904.94	3904.90	3924.87
10/19/98		3870.30	3890.27	3889.79	3890.88	3904.98	3904.99	

Left of Baseline: Station 15+00				
	Rebar & Cap	Hub	Rebar	Rebar & Cap
9/27/02	0.00	136.81		985.62
10/25/01	0.00	136.75		985.60
10/24/00	0.00	136.78	174.89	985.61
10/23/99	0.00	136.81	174.89	985.61
10/19/98		136.80	174.88	

Sea Level Elevation: Station 15+00				
	Rebar & Cap	Hub	Rebar	Rebar & Cap
9/27/02	3883.66	3876.09		3915.12
10/25/01	3883.65	3876.08		3915.07
10/24/00	3883.67	3876.09	3890.71	3915.11
10/23/99	3883.67	3876.11	3890.69	3915.11
10/19/98		3876.10	3890.69	